

We claim:

1. A lamp assembly comprising:

a support circuit board, the circuit board defining an aperture;

a plurality of light emitting diodes mounted to the circuit board;

5 an electrical connection attached to the circuit board and extending outwardly of the lamp assembly;

a mold in place lens material encapsulating the circuit board and light emitting diodes, and formed to provide a predetermined shape for the lens assembly, the electrical connection extending outwardly of the lens assembly.

10 2. The lamp assembly of claim 1 wherein the circuit board defines a plurality of apertures.

3. The lamp assembly of claim 1 wherein the circuit board has a reflector attached thereto.

15 4. The lamp assembly of claim 3 wherein the circuit board has a plurality of reflectors attached thereto.

5. The lamp assembly of Claim 1 wherein the LEDs are positioned and arranged in rows and columns.

6. The lamp assembly of Claim 5 wherein at least one of the rows of LEDs emit light having a color different from at least another row of the LEDs.

20 7. The lamp assembly of Claim 6 wherein the lens material has at least one opening formed in it for permitting attachment of the lamp assembly to another structure.

8. The lamp assembly of Claim 1 wherein the lamp assembly withstands a force of at least 30 ft.lbs.per square inch of force without damage.

9. A lamp assembly comprising:

a moldable, translucent material;

5 a light emitting unit attached to a circuit board wherein the circuit board has been molded within the material; and

electrical leads attached to circuit board that extend through the material to allow electrical connection to the circuit board.

10 10. The lamp assembly of claim 9 wherein the circuit board has a reflector attached thereto.

11. The lamp assembly of claim 10 wherein the circuit board has a plurality of reflectors attached thereto.

12. The lamp assembly of claim 9 wherein the circuit board defines an aperture.

15 13. The lamp assembly of claim 12 wherein the circuit board comprises a plurality of apertures.

14. The lamp assembly of Claim 9 wherein the light emitting unit comprises a plurality of light emitting units comprising light emitting diodes (LEDs).

20 15. The lamp assembly of Claim 14 wherein the LEDs are positioned and arranged in rows and columns.

16. The lamp assembly of Claim 15 wherein at least a portion of one of the rows of LEDs emits light having a color different from at least a portion of another row of the LEDs.

17. The lamp assembly of Claim 9 wherein the lens material has at least one opening formed in it for permitting attachment of the lamp assembly to another structure.

18. The lamp assembly of Claim 9 wherein the lens material can withstand a force of at least 30 ft.lbs.per square inch without damage.

19. A lamp assembly comprising;

10                   a circuit board defining a plurality of apertures;

                      a light emitting unit connected to the circuit board; and

                      a moldable lens material;

                      wherein the circuit board and light emitting unit is submerged within the moldable lens material before hardening and the moldable lens material

15                   allowed to harden, such that the circuit board and light emitting unit are encased within the moldable lens material in the substantial absence of air.

20. The lamp assembly of claim 19 wherein the light emitting unit comprises a light emitting diode.